GSM/GPRS/GPS TRACKER
USER MANUAL

Preface

Thank you for purchasing the tracker. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

1.Summary

Working Based on existing GSM/GPRS network and GPS satellites, this product can locate and monitor remote targets by SMS or internet.

1.1 Main Functions

- **Vehicle Positioning and Tracking**

Report real-time GPS position data(including longitude, latitude, speed, direction, etc.) and vehicle info to service platform, and display the real-time status of the vehicle on the platform.

- **Replay the driving trace**

Replay the driving trace, speed, time, etc. in a specific time range. Each blue point saved the vehicle status at that position, can read the history data from the database and replay it.

- **History Data Backup**

In history database, vehicle driving records(including driving time, trace, speed, etc.) can be saved for 1day or longer. To keep the service speed, the system will transfer the driving history records from current database to history database.

- **KM/Distance**

By measure the distance between each 2 positions the vehicle passed, the system will calculate the KM/Distance of the vehicle driving automatically.

- **Anti-theft and Anti-robbery**

By installing the optional one-press alarm button and cutting-oil equipment, the tracker can protect the vehicle from theft and robbery. When in danger, the driver can send alarm info to the preset mobile phone no secretly by pressing the concealed one-press alarm button.

- **Monitor vehicle driving**

Can set vehicle driving range, trace, speed, etc., when there is any violation, the tracker will report alarm to the platform or the authorized mobile, then the controller can check the vehicle driving trace and cut the oil and electric of the vehicle in danger by SMS remotely.

- **Dispatch the vehicle by SMS**

The controller can dispatch the vehicle by SMS.

1.2 Product Contents

Remarks: white wire control oil-cutting and electric-cutting, black wire to be connected to ground, yellow wire is for detecting the vehicle door lock.

Online platform/control center: http://earth.yitugps.com, user end software will be provided as well.

1.3 Features

- Personal or Vehicle GPS positioning and fleet management.
- World-wide use
- Frequency:GSM 900/1800/1900MHz or 850/900/1800/1900MHz (optional)
- High-sensitive, high-tech and most advanced GPS chipset.
- Positioning precisely even in weak signal cover surrounding.
- Work well even in limit space like narrow street or lane in busy city.
- Compact and easy to be hidden
- Low power consumption
- Receive GPS signal quickly
- Support SMS and GPRS modes
- Support Alarm and remote monitoring(optional)
- Support SMS and internet positioning and tracking
- Monitor and track the vehicle secretly
- Positioning by phone call or via SMS.
- SOS function(optional)

2.Specification

2.1 Technical Specifications

GSM module	GSM 850/900/1800/1900MHz
GPS chipset	SIRF3
GPS sensitivity	-159dBm
GPS Frequency	L1, 1575.42MHz
GPS accuracy	5-25meter
Speed Accuracy	0.1 meter/second
Time Accuracy	Synchronous to GPS
Default Data	WGS-84
Hot Start	1second
Cold Start	38 second
Max ASL	18000 meter
Max Speed	515meter/second
Gravitational Acceleration	＜4g
Working Temperature	-20---65℃
Working Humidity	5%---95%
Voltage	10V—25V
Power Supply	10V—25V
Stand-by average current	< 80MA
LED	LED indicates the GPS, GSM working status and other status

Alarm Switch	SOS

2.2 Bi-colored LED, indicates status

- Red LED------Indicates GPS signal status

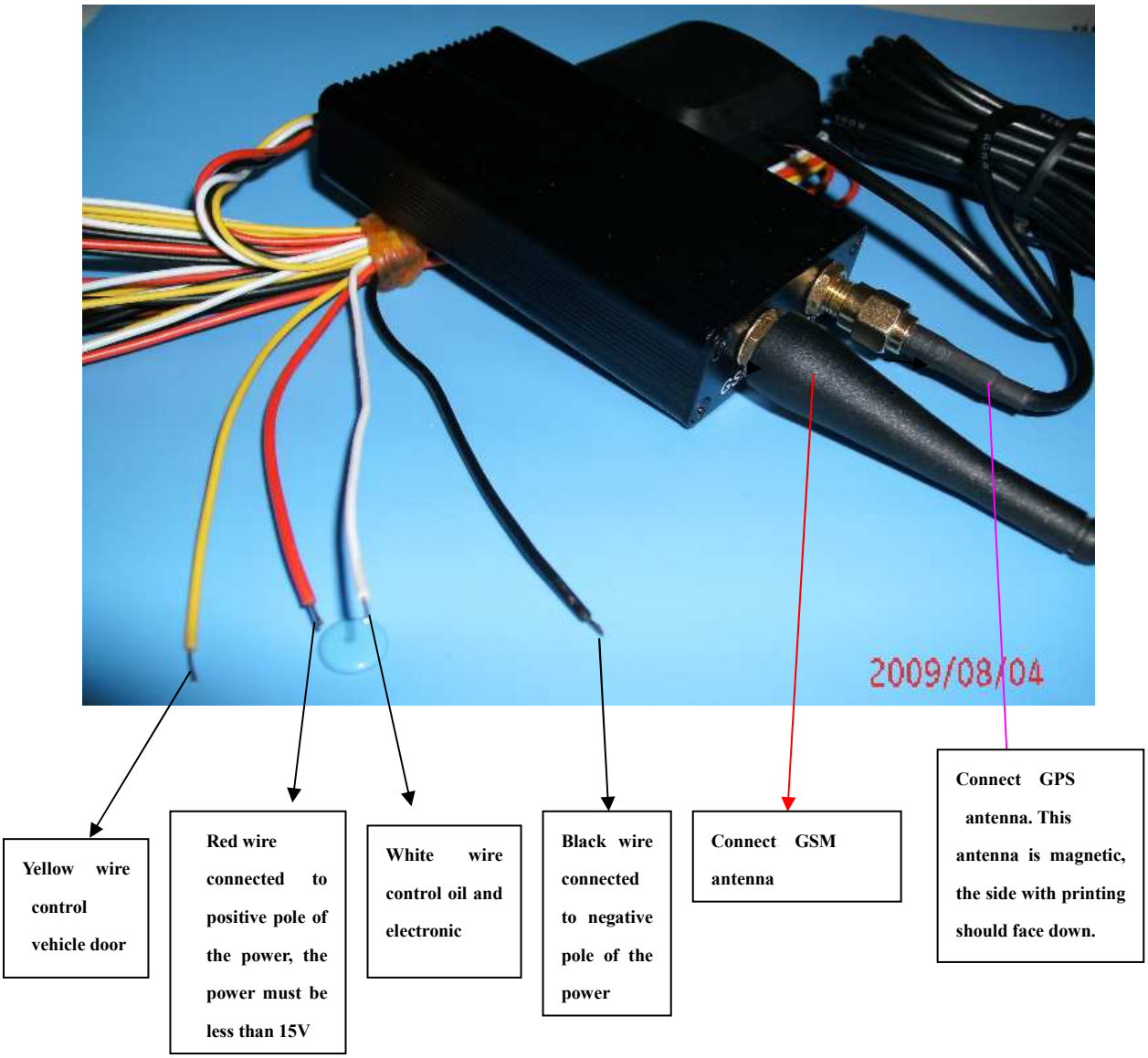
	Status
On	GPS start up
Flickering	GPS signal normal

- Green LED------indicates GSM signal status

	Status
Flicker one time each 7.5 seconds	GSM working normally
Flicker one time each 0.1 seconds	Calling

3.Usage

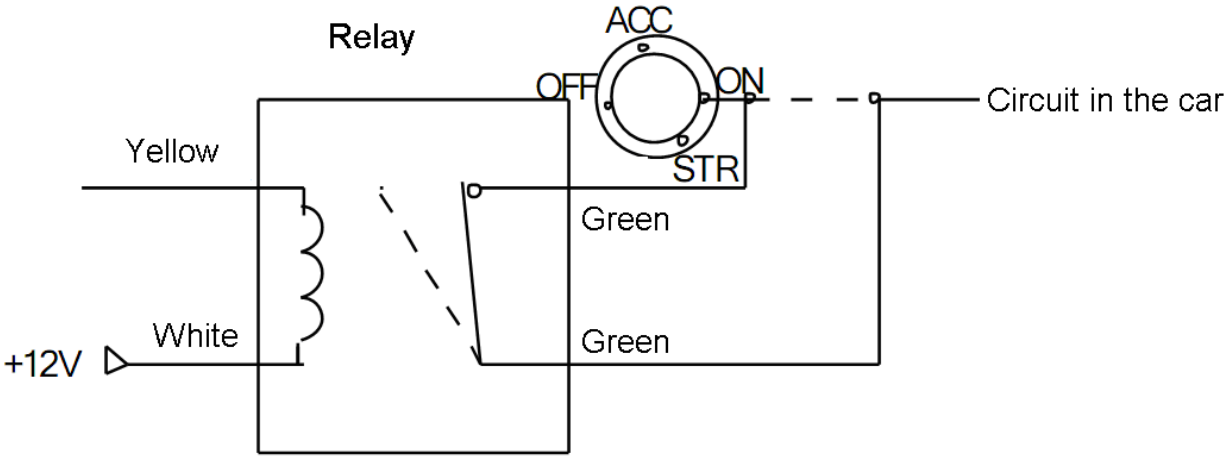
3.1 Main Unit Wiring Diagram



3.2 Relay Wiring Diagram

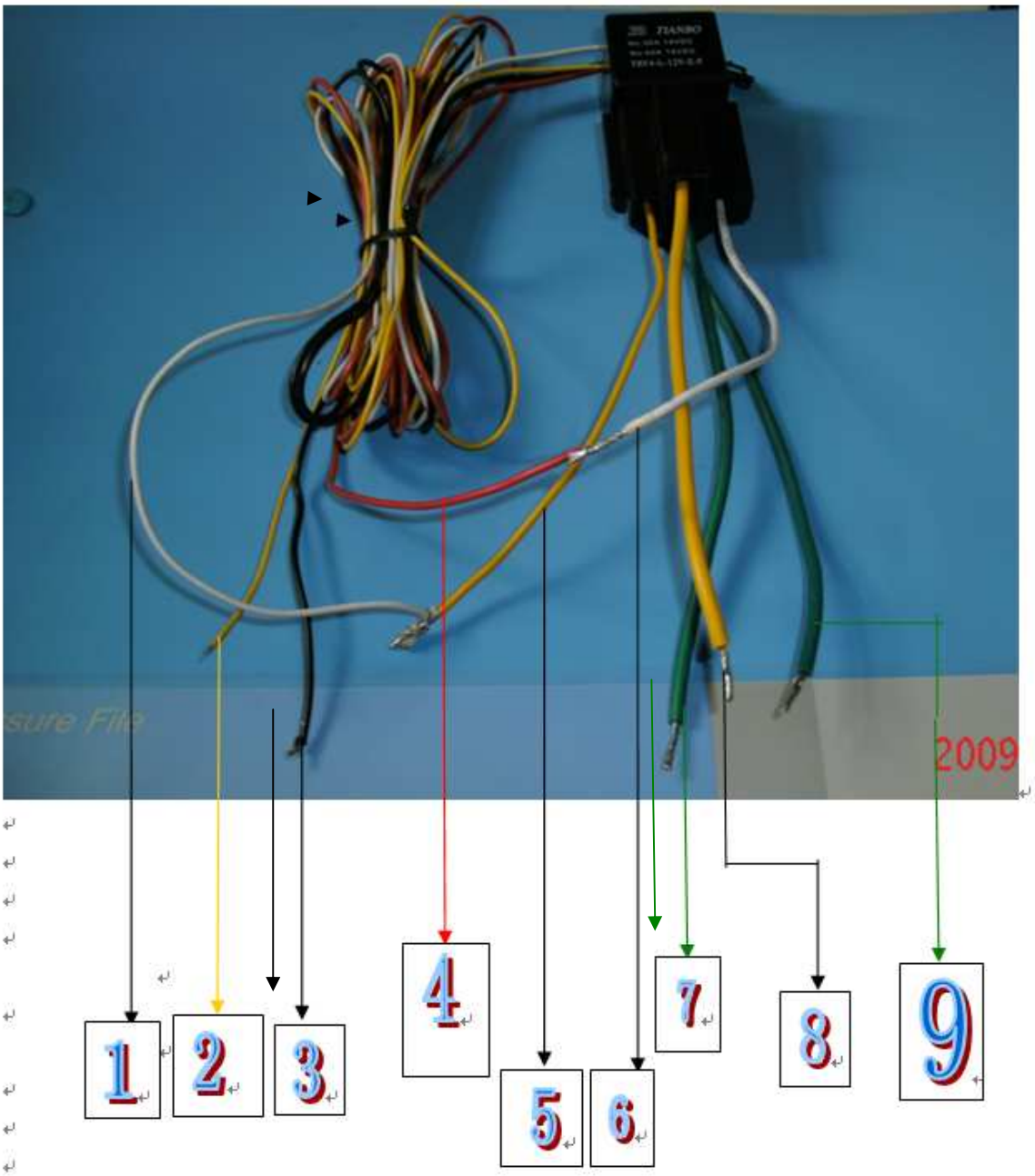
- Oil-Cutting and Electric-Cutting Schematic

Electrical Schematic



Warning: Fix all the components firm, leave the wire as long as possible. If the wire is too short or too tight, it will loose out when the vehicle is driving.

- **Oil-cutting and Electric-cutting wiring diagram**



Serial No.	Color	Function	Remarks
1	White	Control Wire	Connect no. 1 wire and no. 5 wire, control the replay
5	Yellow	Control Wire	
2	Yellow	Door Control	Control the vehicle door
3	Black	Power Negative	Connect to the negative pole of the power supply
4	Red	Power Positive	Connect no. 4 wire and no. 6 wire and connect them to the positive pole of the power supply
6	White	Power Positive	
7	Green	Connect to Electronic Fuel	Cut the Electronic Fuel Injection Wire, connect no. 7
9	Green		

		Injection Wire	and no. 9 wire to **each side of it respectively.**
8	**yellow**	**N/A**	**N/A**

3.3 SIM card installation

Put the SIM card into the slot on the back cover of the trakcer and fasten it in place. Make sure the balance in the SIM card is enough for communication fees.

4.Functions and Operation

TK168 supports tracking via SMS, the position info will be sent to the mobile phone that sends SMS command. There are 2 operation modes, one is point-to-point (SMS) mode, the other is GPRS mode. In SMS mode, the position info is latitude and longitude. In GPRS mode, the position info is detailed address. Currently TK168 only support Chinese and English. The default mode is GPRS mode.

Remarks:

1. All SMS command passwords in this manual contain 4digits, default password is "0000", and can be changed by SMS
2. In GPRS mode, it requires the SIM card installed support GPRS function, please apply for GPRS service, and there will be GPRS trafic in tracking.

4.1 Modes Switch

SMS command: #70X#password##。

"X" represents operation mode：

X=0, point-to-point (SMS) mode, the returned position info is latitude and longitude.

X=3, GPRS mode. In this mode, when TK168 receives the SMS command, it will transfer the position data through GPRS to the server and display the position on the platform, GPRS will be disconnected as soon as the data transfer is finished.

If the setting is successful, TK168 will reply CONFIG OK.

If the password is not correct, TK168 will reply PASSWORD ER.

Factory default mode is GPRS mode.

4.2 Authorization

SMS command：# (711)#Mobile Phone No. # Password # Serial No. (1-9)##

This command is used to set authorized mobile phone number, there are 9 numbers max can be authorized

When the authorized mobile phone calls the TK168, and do not hang up in 8

seconds, TK168 will answer the phone automatically.

Example: #711#13900139000#0000#1##。

If the serial number of the authorized no. is 1, this number is also the one TK102+ will call when SOS button is pressed.

If the setting is successful, TK168 will reply CONFIG OK.

If the password is not correct, TK168 will reply PASSWORD ER.

4.3 Auto Track

SMS command：#730#interval(0-99)#groups(0-99)#password##

If interval is set “0”, it means cancel Auto Track function.

This function can only be used through online platform, the data transfer is through GPRS,When the interval is set <=60, this represents second. When it's set >60, it represent minute. For example, if it’s set 40, the setting is 40 seconds, if it’s set 70, the setting is 99-70=29 minutes. So the minimum interval is 1 second, and the maximum interval is 39 minutes. But with considering the handling time, the minimum interval can only be 3 seconds.

If the setting is successful, TK168 will reply CONFIG OK.

If the password is not correct, TK168 will reply PASSWORD ER.

Example

SMS command: #730#30#2#0000##。

Auto Track function is activate, TK168 will collect the data in each 30seconds and report the data of 2 positions to the platform each 30*2 seconds.

4.4 Change the Password

SMS Command：#770#new password(4 digits)#old password(4 digits)##

Example: #770#1111#0000##

If the setting is successful, TK168 will reply “Change OK”, Password changed to “1111”.

4.5 Geo-fence

Remarks: This function only works after the authorized number is set, please refer to 6.2.

SMS command:

#750#radius(meter, 5digits)#interval(minute)#password##

The pivot is current position of TK168.

In GEO-FENCE status, TK168 will read the GPS position data according to the interval setting and compare it with the geo-fence setting, if the target exceeds the setting range, TK168 will report warning info to the mobile phone.

If the setting is successful, TK168 will reply CONFIG OK.

If the password is not correct, TK168 will reply PASSWORD ER.

Example:#750#500#5#0000##

Set 500meter geo-fence, when the target exceed this geo-fence in 5minutes, TK168 will report "OBJECT OUT".

4.6 Cancel Geo-Fence

SMS Command：#760#password##

If the setting is successful, TK168 will reply CONFIG OK.

If the password is not correct, TK168 will reply PASSWORD ER.

4.7 Cut Oil and Power

The white color wire is for controlling the oil and power.

SMS command: 221+password

Example:

Send SMS 2210000 to TK168, it will reply SET OK, the vehicle oil and power are cut. If the password is not correct, it will reply PASSWORD ER.

SMS Command: 231+password

Example:

Send SMS 2310000 to the TK168, it will reply SET OK, the vehicle oil and power are resumed. If the password is not correct, it will reply PASSWORD ER.

4.8 Set APN

SMS command: #802#APN(letter or number, 4-20 digits)#Login user name(letter or number, 4-20 digits)#Login password(letter or number, 4-20 digits)#TK168 Password(4digits)##

If APN is set "0", it's defaulted to be CMNET.

If the login user name and password are sent "0", it's defaulted to be no user name and password.

If the setting is successful, TK168 will reply CONFIG OK.

If the password is not correct, TK168 will reply PASSWORD ER.

Example 2：#802#CCDLEN#QIUXIA.21#RX0000#0000##

APN is CCDLEN, longin user name is QIUXIA.21, login password is RX0000.

Remarks: In most countries, it's no need the GPRS login user name and password.

4.9 Single Positioning

SMS command：

666+Password（Factory defaulted password:0000）

Example: Send SMS 6660000 to TK168

It will reply an SMS with longitude and latitude data.

This command only work in point-to-point (SMS) mode, the reported SMS content format is as below：

#Serverdata#longitude,latitude,speed,direction#date#time#Statusbit#password#mobile phone no.##

Example:

#59346db2#11958.3033,E,2652.1362,N,0.00,315.00#181109#030538.0000#0#0000#13900139000##

When checking the position info in google earth, please input the longitude and latitude (example: 26 52.1362,119 58.3033), and please mind the blank space.

4.10 IMEI Checking

SMS Command: #901#password##

4.11 VOICE

When the authorized no. calls the TK168, it will answer the phone automatically after 5-8 rings.

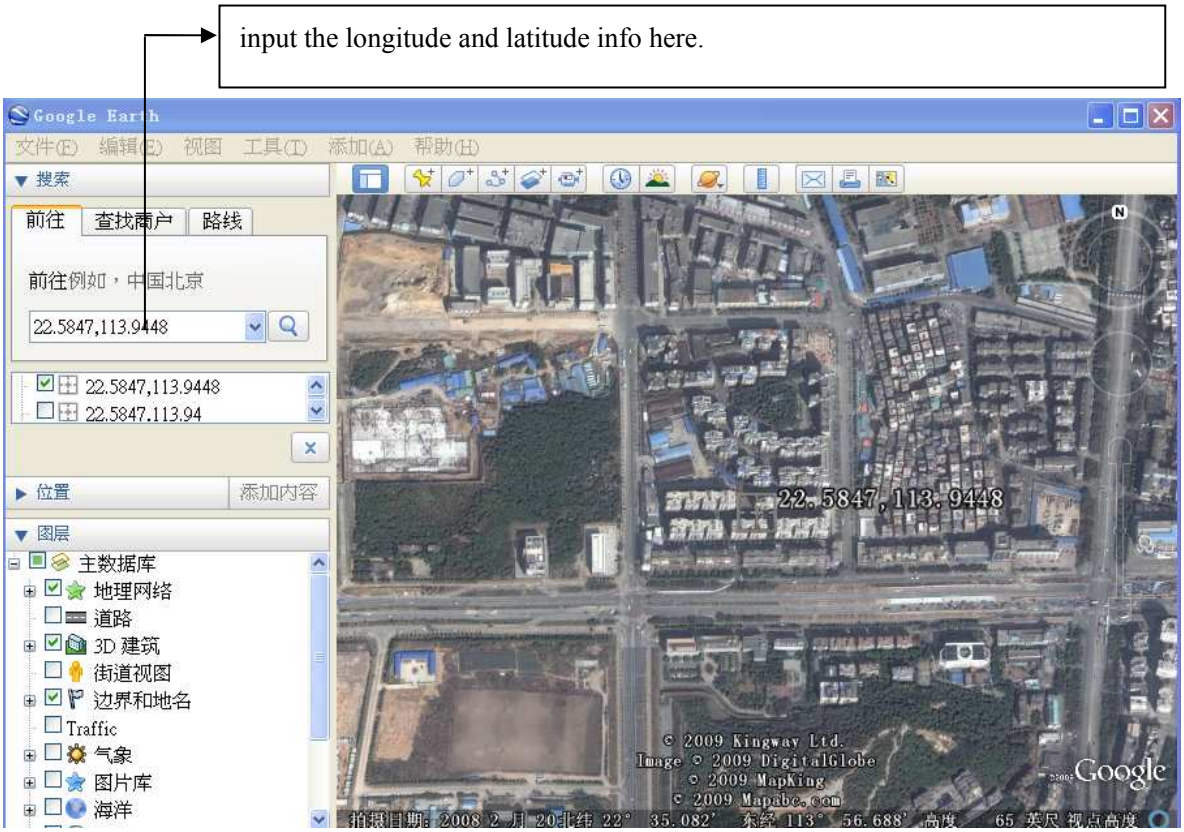
4.12 Check Real Position Info in Google Earth

Set the tracker to Point-to-point mode, and get the position info via SMS, then input the longitude and latitude info to google earth or other DIY map to check the real position info.

1.Download the googel earth software at http://earth.google.com

2.Install and run the googel earth.（Please refer to

http://earth.google.com for more info about how to use this software）



（*Remarks: Please pay attention to the data format*）

4.13 Online tracking platform / Control Center

The users can operate the GPS tracker through our internet real-time tracking platform http://earth.yitugps.com or through user end software provided by us. In the platform, you can check real-time position info, real-time trace, history record and manage the user/fleet info, etc.

Operation Procedure：

Open http://earth.yitugps.com or user end software, input the user name, password and check code, click log in and enter the user service interface. New users need to register first, below please

note the register procedure，

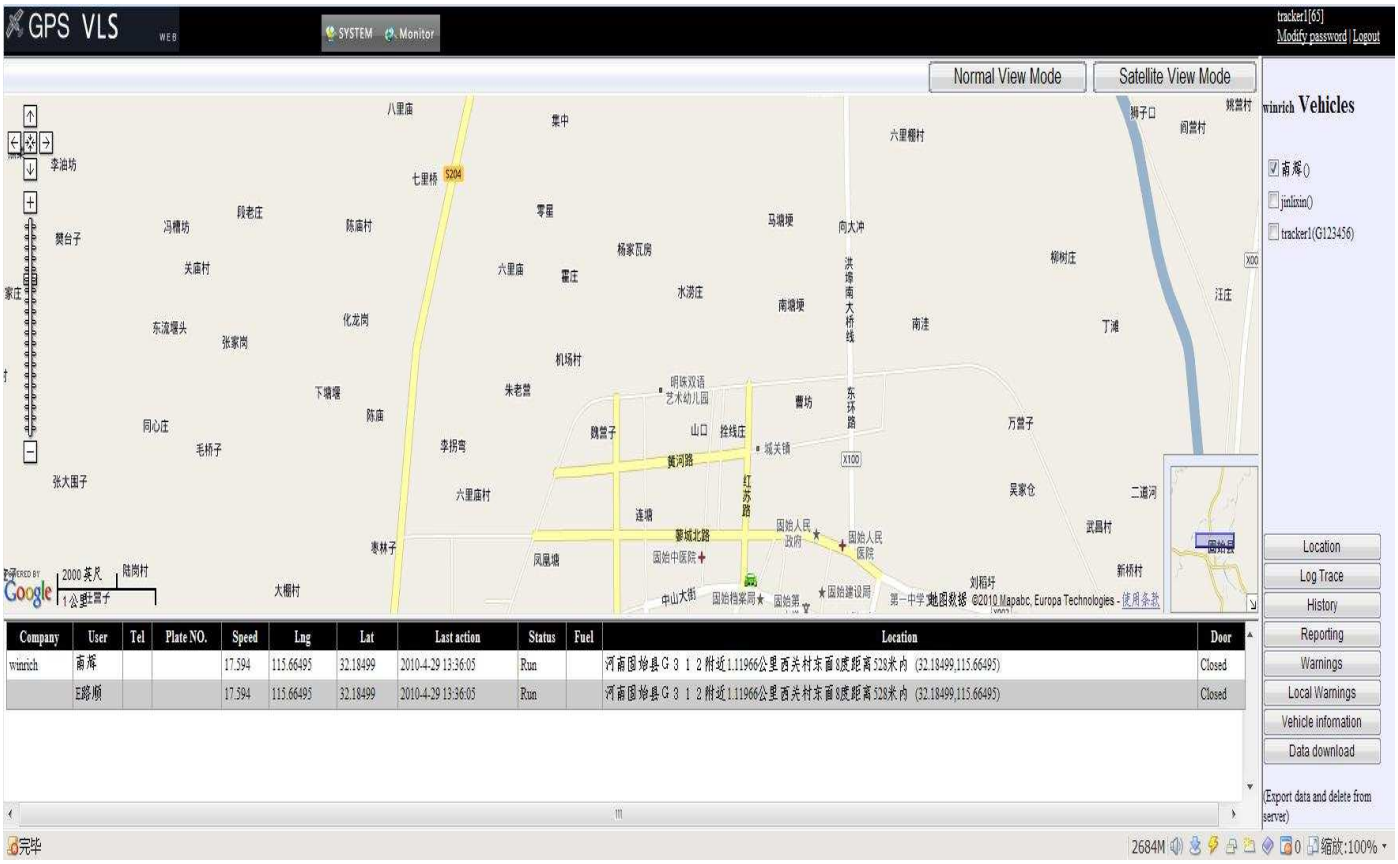
- Open http://earth.yitugps.com or user end software and enter below interface

- Click Login and enter new user register interface as below

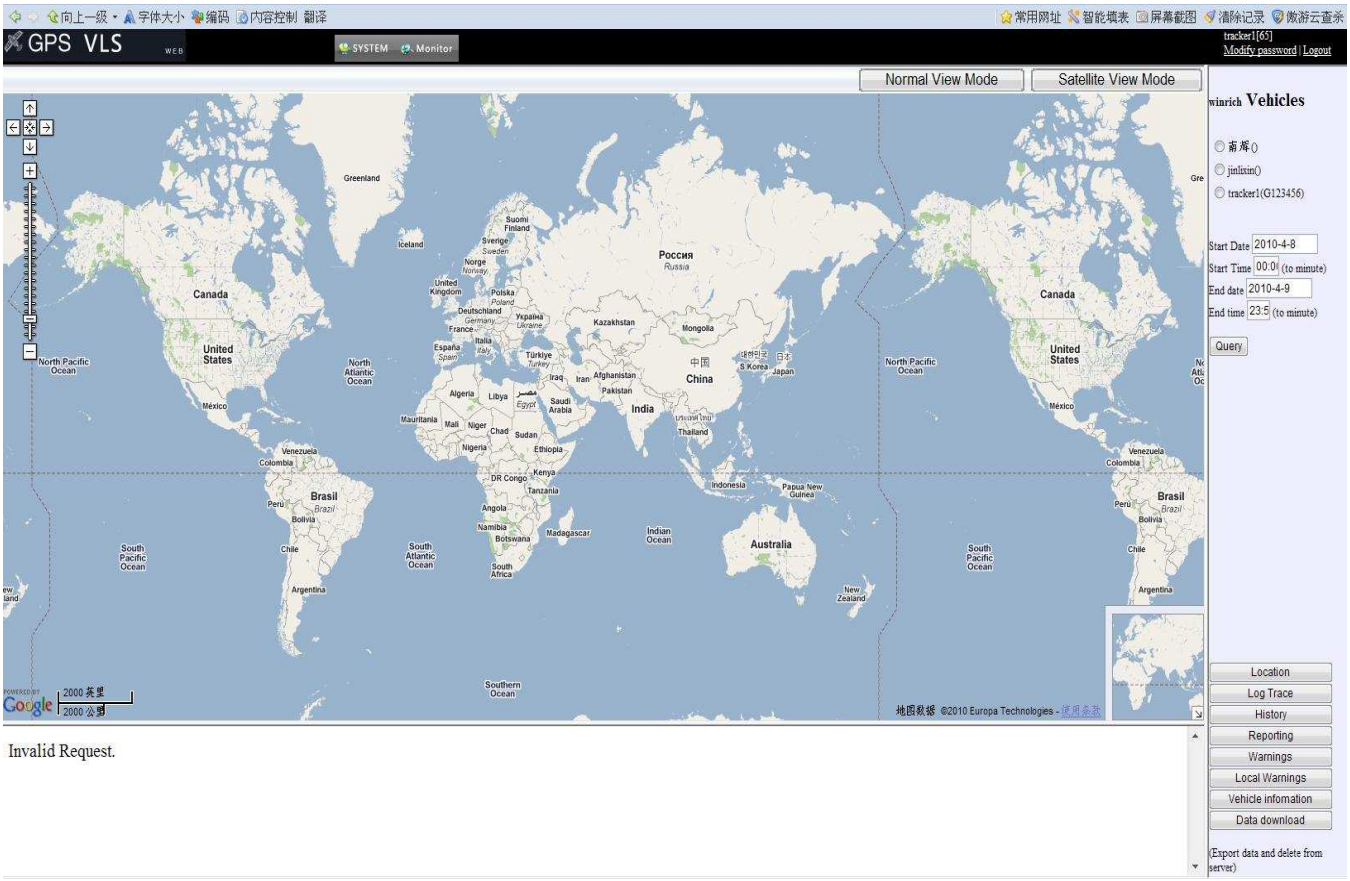
- Fill in the blanks and remember your password. SN can be found

on the label attached on the tracker. VIP card no. is provided by our company. Click Register, complete the registration, then below interface show up,

- Click Location and check the real position of the tracker on the map as below,

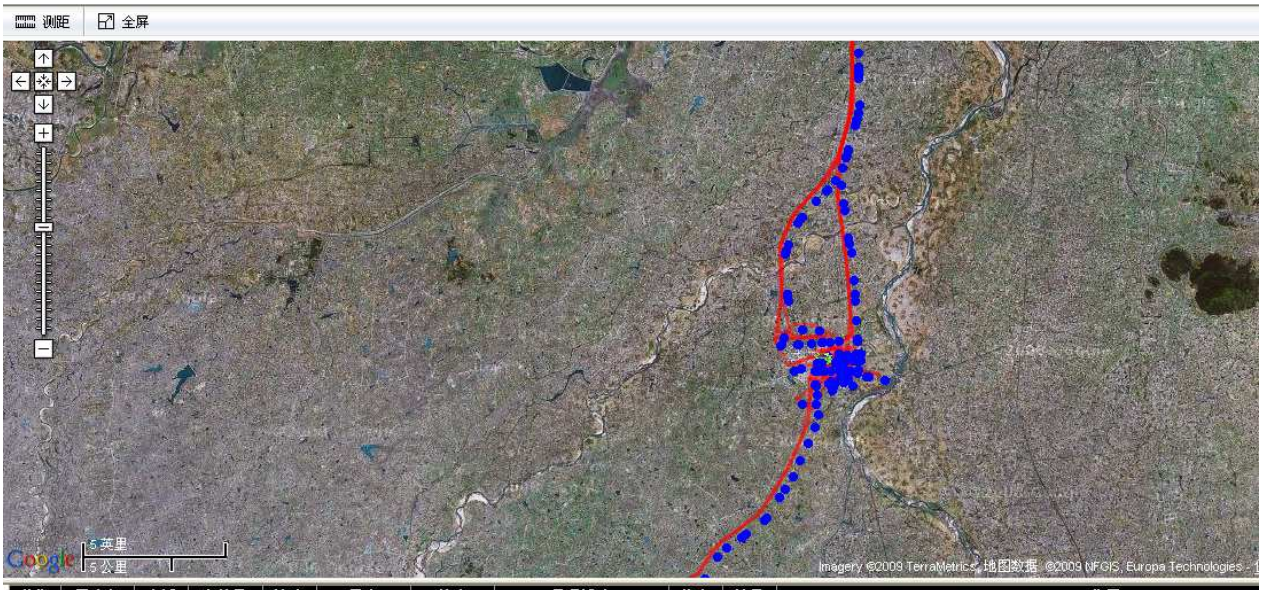


- Click History, select tracker, start date, time and end date and time, then check the trace of the selected tracker on the map as bleow,



- Satellite Mode View

Click Satellite Mode View on the top right corner and check the history trace.



单位	用户名	电话	车牌号	速度	经度	纬度	最后活动	状态	油量	位置
HN1	厉威		骊威	0	115.65434	32.18814	2009-10-26 20:06:14	停止		河南固始县G３１２上三一二国道东面1度距离389米内 (32.19447,115.65417)

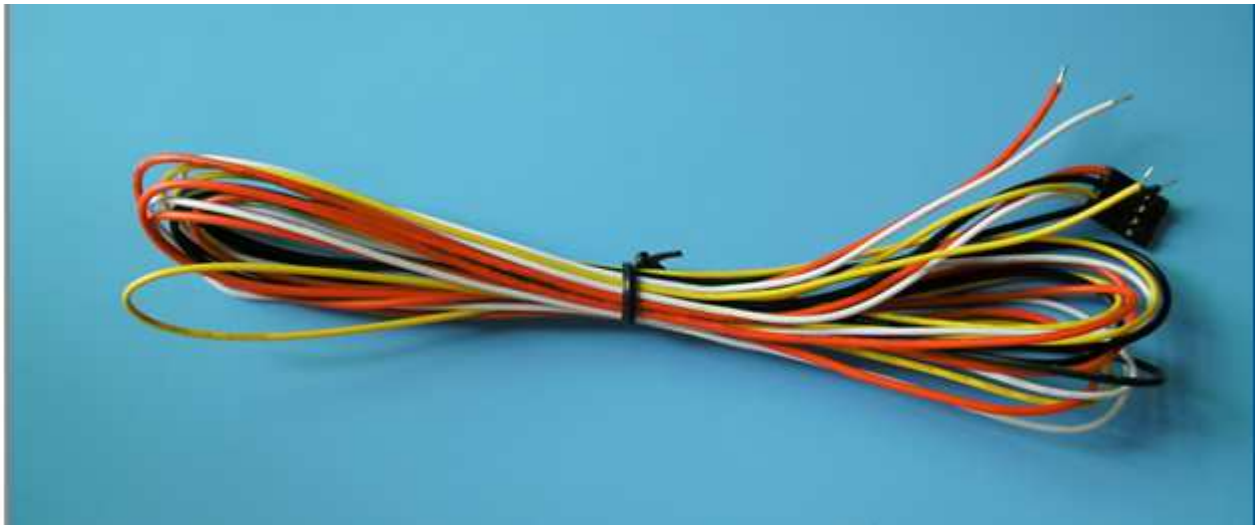
5. Accessories

Check all accessories before use.

5.1 GPS Antenna

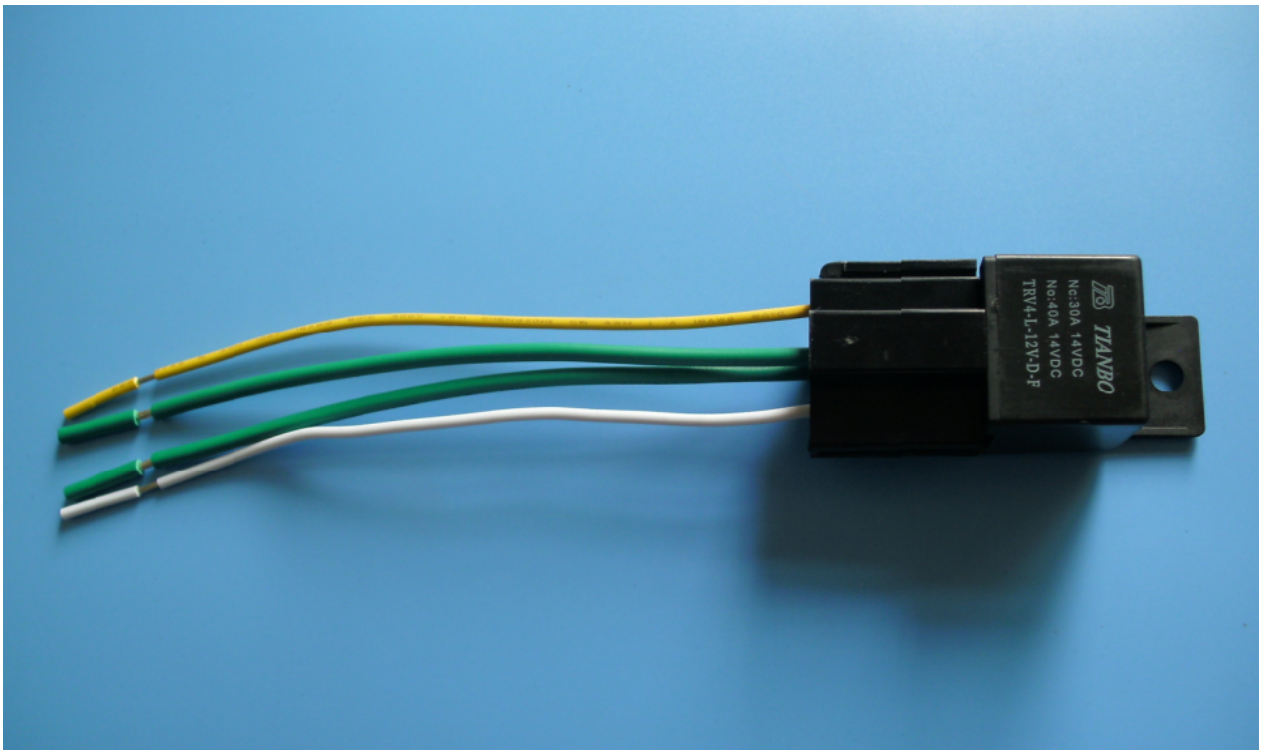
5.2 GSM Antenna

5.3 Wires



5.4 Back cover and screws (4pcs)

5.5 Relay



5.6 Microphone

6 Cautions

1. This product are not waterproof design, please use it together with waterproof bag.

2. This product should be use through GSM network.
3. Make sure the balance in the SIM card is enough to avoid any inconvenience in use.
4. This product cannot work in power-off status or out of service district.
5. This product support either GPS or GSM/GPRS positioning.
6. Use this produce in legal fields. The users should take responsibility for any results by illegal use.